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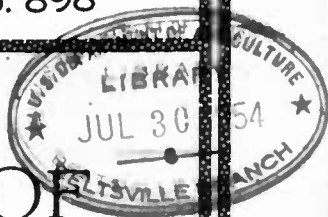
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U. S. DEPARTMENT OF AGRICULTURE

FARMERS' BULLETIN No. 898

STANDARD VARIETIES OF CHICKENS

II. MEDITERRANEAN AND
CONTINENTAL CLASSES



THE BREEDS discussed in this bulletin are commonly known as the egg breeds, because they are kept primarily for egg production and are not well adapted for the production of meat. This popular classification is somewhat misleading, as these breeds do not lay any more eggs than some of our general-purpose breeds, but they produce eggs more cheaply, as they eat less feed. All the breeds in the egg class are relatively small in size and produce white eggs. These fowls are very active and of a nervous temperament. They are nonsitters, and incubation by artificial methods or by hens of other breeding must be used in reproducing these breeds.

The Single-Comb White Leghorn is by far the most popular variety discussed in this bulletin and is the fowl kept almost exclusively on commercial egg farms in this country. This variety is kept very largely in the States within easy shipping distances of New York City and is also very extensively raised on the Pacific coast. The Leghorns are not bred so extensively in the Middle West section on general farms, although many scattering flocks of Leghorns are found in that section also.

STANDARD VARIETIES OF CHICKENS

II. MEDITERRANEAN AND CONTINENTAL CLASSES

By ROB R. SLOCUM, *formerly of the Animal Husbandry Division, Bureau of Animal Industry.*¹

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IMPORTANCE OF EGG PRODUCTION

EGG production doubtless is the leading branch of poultry keeping, and, in addition, is a very important agricultural activity. According to the last census the eggs produced in the United States in 1919 numbered more than 1,654,044,932 dozen, with a value of more than \$661,082,803. Eggs, of course, are produced wherever chickens are kept, and by far the greater part of the egg crop comes from the general farm, yet large so-called egg farms have been developed with the main purpose of producing eggs for market. The largest of these egg farms and the greater number of them are located near markets which pay a premium for white eggs; and for this reason, together with the fact that eggs are primarily desired, the breeds kept are those known as the egg breeds, such as the Leghorn, Campine, Minorca, and Ancona. The Single Comb White Leghorn is undoubtedly the most popular and the most widely kept variety of the egg breeds. These breeds comprise the Mediterranean and Continental classes, as given in the American Standard of Perfection.² The eggs breeds frequently are found on general farms also, particularly in those sections near markets preferring a white egg, and where considerable flocks of poultry are kept.

CHARACTERISTICS OF THE EGG BREEDS

These breeds are smaller than the general-purpose breeds, such as the Plymouth Rock, and for that reason they do not make a particularly desirable table fowl and are not in as good favor with the

¹ Mr. Slocum resigned October 11, 1921, and later reentered the service of the department in the Bureau of Agricultural Economics.

² A book published by the American Poultry Association.

poultry packers as the larger general-purpose breeds. Surplus cockerels, however, turned off as broilers when they weigh from three-quarters of a pound to a pound and a half, find a ready market.

The egg breeds in general are characterized by their activity and sprightliness, and are of a much more nervous temperament than the heavier breeds. It is necessary to work and move quietly among them to avoid frightening them. They are more difficult to keep in confinement, and where their quarters are fenced, 6 or 7-foot fences are used. Clipping the flight feathers of one wing will keep them from flying over the fence. They mature more quickly than the heavier breeds, but if hatched early, they often begin to lay so early in the fall that they go into a molt like the old hens. This of course checks their egg production. It is the custom of some egg farmers to hatch early chicks for the purpose of obtaining eggs during the fall, expecting these early birds to go into a molt and depending upon later hatches to supply eggs during the late fall and winter.

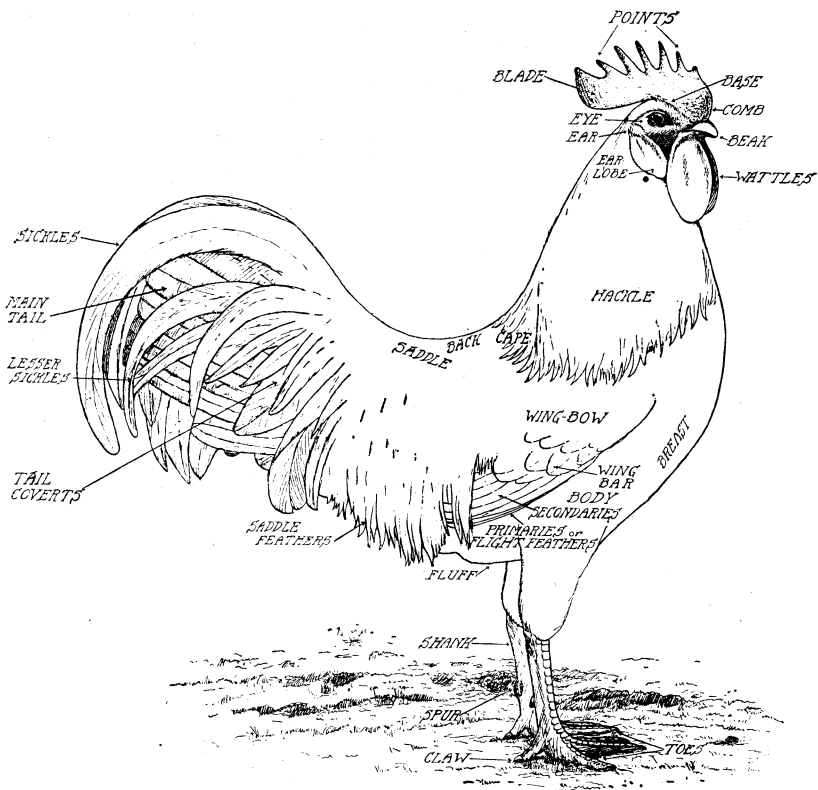


FIG. 1.—Glossary chart giving the names of the various parts of a male fowl

Chickens of the egg breeds, because of their greater activity, are fine foragers, and when they have free range they will cover a very

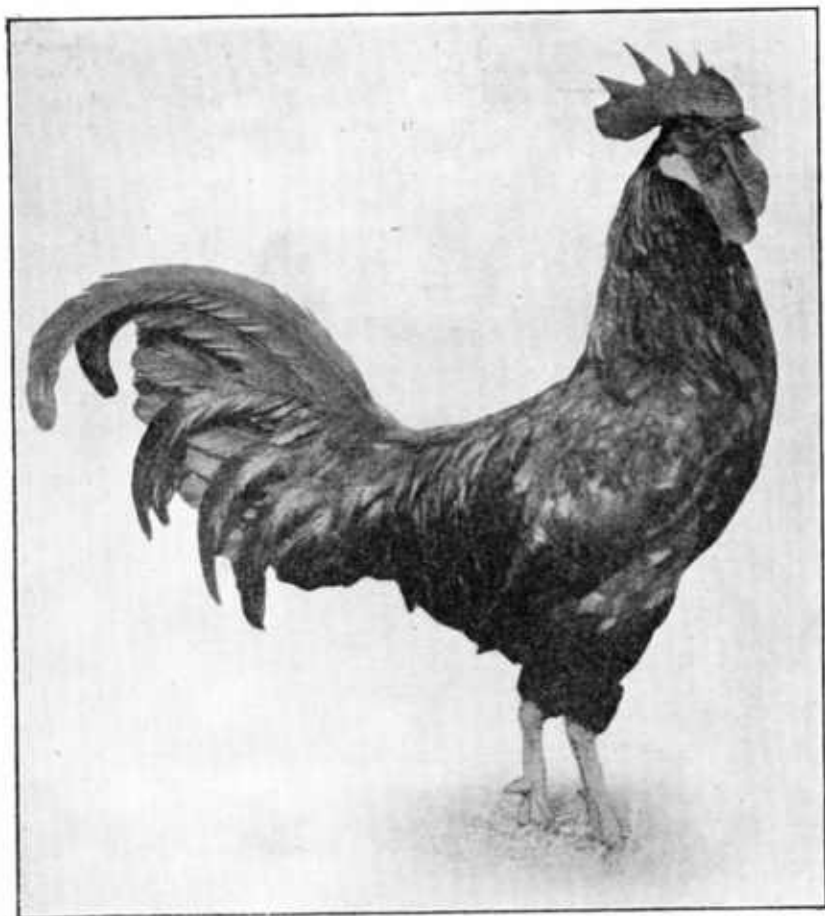


FIG. 2.—Single Comb Dark Brown Leghorn, male

large area and pick up a considerable amount of feed. Fowls of these breeds do not have the same tendency to become overfat as fowls of larger breeds, and though they respond to careful feeding they are not so quick to feel the bad effects of overfeeding. Because of their smaller size they do not eat as much as fowls of the larger breeds.

All of the egg breeds are classed as nonsitters—that is to say, they do not become broody and hatch their eggs. Occasional individuals will show broodiness, and will even bring off a hatch of chicks; but they are not dependable for this purpose. Where egg breeds are kept it is therefore necessary either to depend upon hatching with incubators and brooding with heated brooders or else to keep hens of a broody breed for the purpose of hatching and brooding the chicks.

All of the egg breeds are clean legged, or have shanks free from feathers, and have white or creamy-white ear lobes. They are close-feathered fowls, being tighter in this respect than the Plymouth



FIG. 3.—Single Comb Light Brown Leghorn, female

Rocks, but not so tight as the Games. All of them also lay white eggs of good size, and as a class they are reputed to be excellent layers.

BREEDS AND VARIETIES

The Mediterranean class includes the following standard breeds and varieties:

BREEDS	VARIETIES	BREEDS	VARIETIES
Leghorn.....	Single Comb Light Brown. Single Comb Dark Brown. Rose Comb Light Brown. Rose Comb Dark Brown. Single Comb White. Rose Comb White. Single Comb Buff. Rose Comb Buff. Single Comb Black. Silver.	Mhuorca.....	Single Comb Black. Rose Comb Black. Single Comb White. Rose Comb White. Single Comb Buff. White-Faced Black.
		Spanish.....	White-Faced Black.
		Blue Andalusian.	
		Aucona.....	Single Comb. Rose Comb.

The Continental class includes Silver and Golden Campine and the Buttercup.

In describing these breeds and varieties it is the intention to give only a general statement of their appearance and characteristics. For a description sufficiently detailed to enable one to breed exhibi-

tion specimens it will be necessary to refer to the American Standard of Perfection, a book published by the American Poultry Association, which is the guide by which all the poultry shows in the United States are judged.

LEGHORN

The Leghorn for years has been a widely known breed in the United States. Leghorns were brought into this country from Italy. The first varieties imported were the Single Comb Brown and the Single Comb White. There is every indication that this breed originated in Italy, where fowls of a similar type have been kept for many years. The breed is noted for its alertness, its stylishness of carriage, and the graceful blending of its different sections. In general the breed may be described as a rather small, comparatively long-backed chicken, with moderately low-carried, well-furnished and well-spread tail, and with a long, sweeping curve of neck, back, and tail. These birds have comparatively long shanks, are well up on legs, showing the hock and a part of the thigh. The body should be nicely curved throughout and the breast quite prominent. All the Leghorns have yellow skins and yellow shanks.

All the varieties of Leghorns are identical in size and type, differing only in kind of comb and in color. The single comb in the male should be of medium size and should stand erect, with five regular,



FIG. 4.—Single Comb White Leghorn, female

deeply serrated points. The blade of the comb should extend straight out from the back of the head, and should not follow the curve of the neck or incline upward. In the female the front and the first point should stand erect, but the remainder of the comb droops to one side. The comb in both sexes should be free from wrinkles, thumb marks, or folds. In the Rose Comb varieties the comb of the male should be of medium size and square in front, well filled and free from hollows, the spike well developed and extending straight back off the head, showing no tendency to follow the curve of the neck or to turn upward. The rose comb of the female is small and neat, and in shape is like that of the male.

The standard weights are: Cock, 5½ pounds; hen, 4 pounds; cockerel, 4½ pounds; pullet, 3½ pounds.

The Single Comb Brown Leghorn is one of the older varieties of the breed known in this country. Until recently it was included in the standard as a single variety, but, owing to the almost universal practice of double mating, it has recently been divided into two varieties, known as the Single Comb Light Brown Leghorn and the Single Comb Dark Brown Leghorn.

By double mating is meant the use of two separate matings; one for the production of males of standard or exhibition color, known as the cockerel mating, and the other for the production of females of standard or exhibition color, known as the pullet mating. The present Single Comb Light Brown Leghorn consists of what was previously known as the pullet mating, while the Single Comb Dark Brown Leghorn consists of what was previously known as the cockerel mating. It is hoped that by dividing the Single Comb Brown Leghorn into the Light and Dark varieties double mating can be done away with.

The Single Comb Brown Leghorn male is one which is considerably lighter colored in all red sections than what was previously known as the standard colored male, now standard male of the Dark Brown variety. The base of the neck and the saddle should approach light orange in shade; the saddle should show no striping, and the undercolor throughout should be light slate instead of dark slate.

The female of this variety has a golden-yellow head which shows a tinge of dark brown. The hackle is golden yellow with a black stripe extending down the middle of each feather as in the Dark Brown Leghorn male, except that the stripe is broader and terminates in a rounder point. It is difficult to obtain females showing good hackles and at the same time good stippling, as the best-stippled females are likely to be weak in striping. The back, body, tail coverts, wing bows, and coverts have a surface color of light brown which is finely stippled with darker brown. The shade of color over the back, wing bows, and coverts should be even and the feathers free from shafting. The wing primaries are a slaty brown with the outer webs showing a narrow edging of brown. The secondaries are brown, with the outer webs finely stippled with lighter brown. The tail is black, with the two highest main tail feathers stippled with lighter brown. The breast should be rich, clear salmon, free from penciling, stippling, or shafting. The sides of the breast shade gradually to the color of the wings. The fluff and thighs are slate tinged with brown. The undercolor throughout is slate.

The Single Comb Dark Brown Leghorn male has a dark-red head, a rich red hackle and saddle, the feathers of which are striped with a greenish-black stripe extending through the middle of each feather. The back is of the same shade as the hackle, but is without the striping. The wing bows are rich red, the fronts and coverts greenish black, which show as a distinct wing bar when the wing is folded. The primaries are black, the lower webs edged with brown. The secondaries also are black, the lower webs showing edges of brown. The tail, body, breast, fluff, and thighs are black. The shanks are yellow, while the toes may be yellow or a dusky yellow. The undercolor throughout is slate.

The female of this variety is of a darker shade than the female of the Light Brown variety, formerly the only standard female. The back and wings should be of a darker color, in reality a black stippled with a dark brown. There should be no shafting, but the plumage should show a greenish sheen free from purple. The stippling is much coarser than is the case in the Light Brown female. The neck

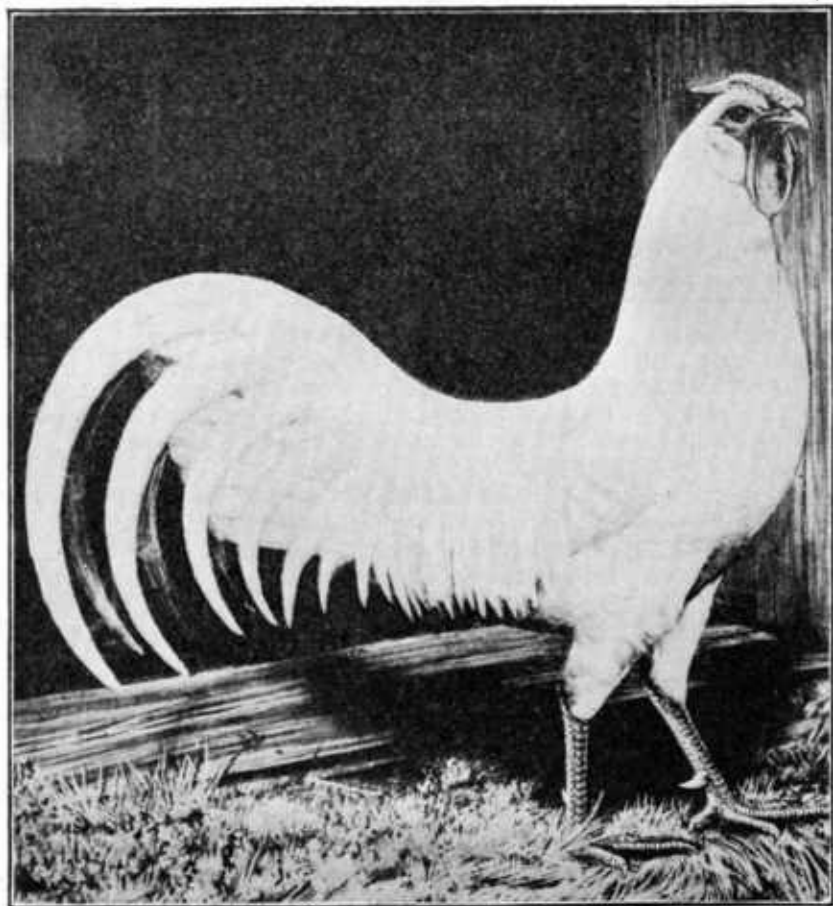


FIG. 5.—Rose Comb White Leghorn, male

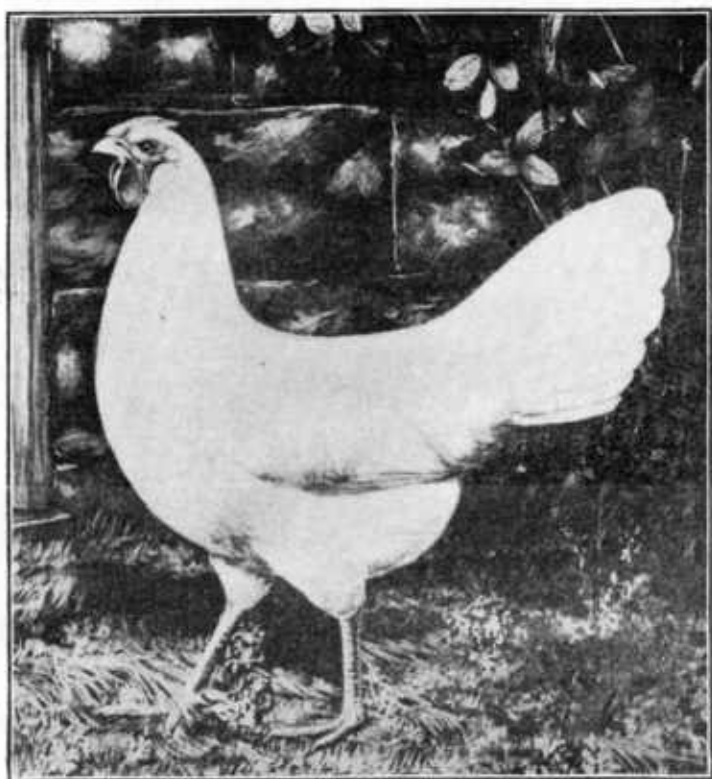


FIG. 6.—Rose Comb White Leghorn, female

should be strongly striped with black. The breast is a dark-reddish salmon which is stippled with brown. The undercolor should be slate running quite dark clear to the skin. The legs and toes should be yellow, although a dusky yellow is allowable.

The Rose Comb Brown Leghorn under the old standard was identical in color and type with the Single Comb Brown Leghorn, the only difference being in the matter of the rose comb. When the Single Comb variety was divided into the Light and Dark varieties, the same action was taken with the Rose Comb variety. At present, therefore, there is a Rose Comb Light Brown Leghorn and a Rose Comb Dark Brown Leghorn which are identical in color and type with the corresponding Single Comb varieties.

The Single Comb White Leghorn undoubtedly is the best known of the Leghorns or of any other variety of the egg breeds. It is widely kept, both on special egg farms and on general farms in certain sections of the United States. In some sections the keeping of White Leghorns has been developed on a large scale, and these sections may be well termed White Leghorn centers. The largest and best known of these centers are the districts around Petaluma, Calif., and Vineland, N. J. In type the Single Comb White Leghorn is identical with the Single Comb Brown Leghorn. In color both

the males and females are white throughout, and should be free from any brassiness or creaminess. The shanks and toes should be a rich yellow. The male of this variety is shown on the title page and the female in Figure 4.

The Rose Comb White Leghorn (figs. 5 and 6) is identical with the Single Comb White Leghorn except in the matter of the rose comb.

The Single Comb Buff Leghorn is a handsome and attractive variety, but is not so widely kept as either the Single Comb White or the Single Comb Brown Leghorn. The Single Comb Buff Leghorn is distinguished from the other Leghorns by the color alone. This should be an even shade of golden buff throughout. Shafting, or the presence of feathers having a shaft of different color from the rest of the feathers, and mealiness, or the presence of feathers sprinkled with lighter color as though powdered with meal, are undesirable. As deep an undercolor of buff as it is possible to obtain is desired. A very important point with regard to the surface color is to have the shade as even as possible throughout. The legs and toes are a rich yellow.

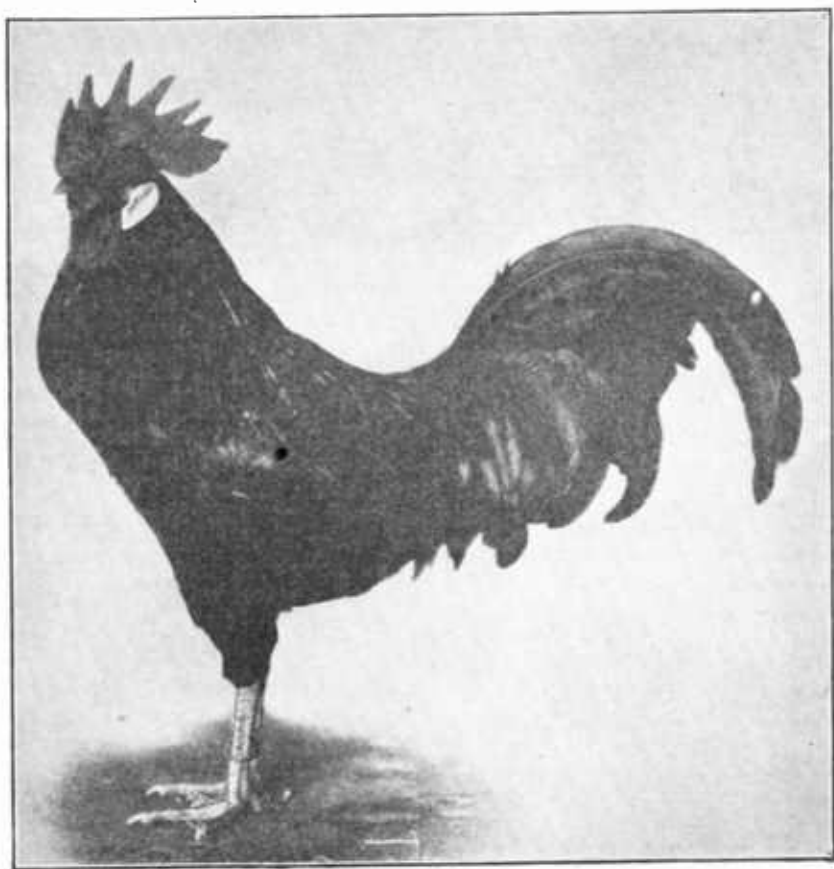


FIG. 7.—Black Leghorn, male

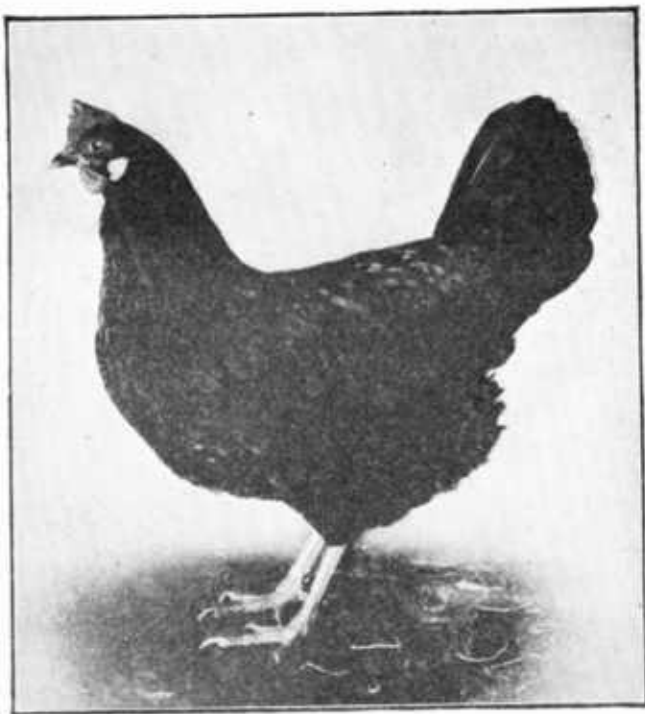


FIG. 8.—Black Leghorn, female

The Rose Comb Buff Leghorn is identical with the Single Comb Buff Leghorn except in the matter of the rose comb.

The Single Comb Black Leghorn (figs. 7 and 8) is distinguished from the other Single Comb Leghorns by the color alone, which is black in all sections, showing a lustrous sheen, free from purple barring. The undercolor throughout is a dull black. The legs and toes are yellow or dusty yellow. The Single Comb Black Leghorn is a very attractive variety, but is not found very commonly.

The Silver Leghorn is a single-comb variety of this breed and is identical in type with the other single-comb varieties. This variety also is most attractive in color but is not very commonly kept. The male has a silver top color. The head is silver white and the hackle is of the same color but with a median stripe of black. The wing fronts and shoulders are black, the bows a silver white, the coverts black and forming a distinct bar across the wing. The primaries are black except for the silver-white outer edges of the lower feathers. The secondaries are also black, but a part of the outer web is white in some of the feathers, forming a white wing bar. The back, saddle, and lower tail coverts are silver white. The cape, main tail feathers, sickles, upper tail coverts, breast, body, thighs, and fluff are black. The undercolor is gray throughout. In the female the head is a silver gray. The neck is a silver gray, each feather showing a narrow black stripe. The wing bows and coverts are silver white, finely stippled with ashy gray, giving these sections a general gray cast. In the primary and secondary feathers the upper webs are gray and the lower webs slaty gray. The front of

the neck is a light salmon, and the breast is salmon, fading gradually to the color of the wings at the sides. The back, body, and thighs are the same color as the wing bows and coverts. The tail is black except that the upper two feathers are light gray and the tail coverts are gray. The fluff is a light ashy gray. The undercolor is gray throughout. The legs and toes of both sexes are yellow.

MINORCA

The Minorca appears to have been kept in Spain for a long time, and it is probable that the Minorcas found in this country came originally from that source. As the name would indicate, they are commonly supposed to have been natives of the island of Minorca. The importations to this country probably were from England rather than directly from Spain.

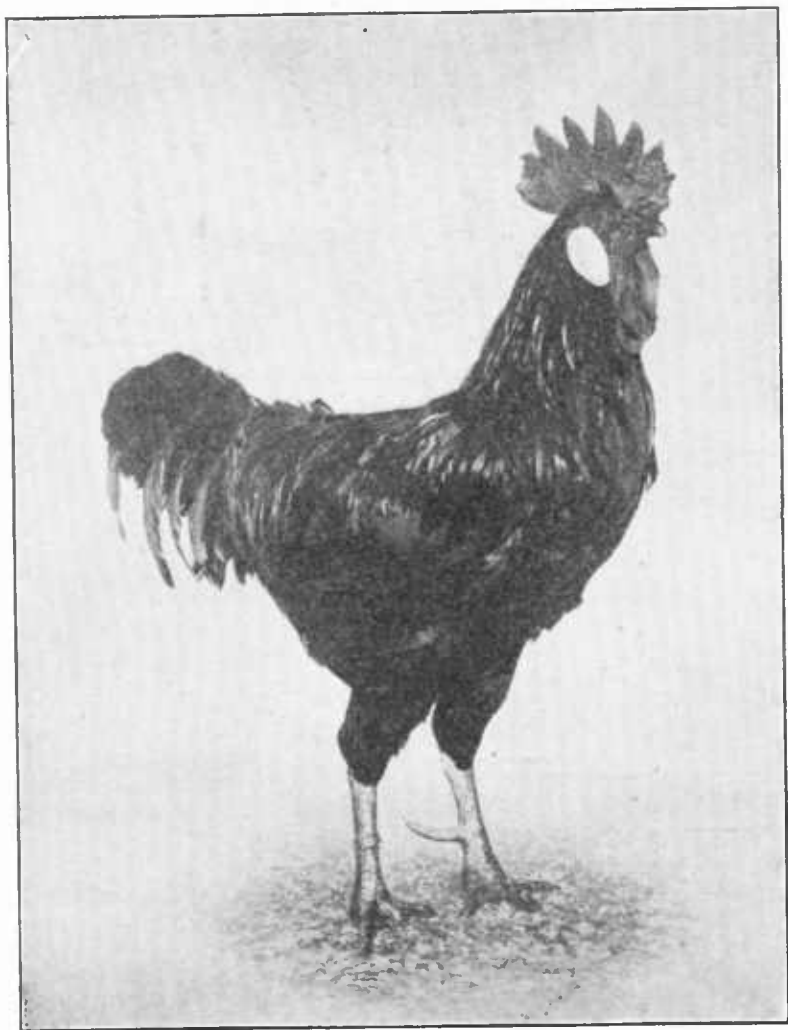


FIG. 9.—Single Comb Black Minorca, male



FIG. 10.—Single Comb Black Minorca, female

The Minorca is the largest of the Mediterranean or egg breeds. It is characterized by its size, its length of body, and the large comb and long wattles. The Minorca shows a long back which has a noticeable slope from the shoulders downward to the base of the tail. The underline of the body is also noticeably long. The tail is rather low carried and is well spread. The Minorca also has long shanks and is well up on the legs, showing the hock and part of the thigh. The breast is prominent and well rounded. In general the Minorca is a more angular-looking bird than the Leghorn, as it does not have as smooth a curve where the back and tail sections join.

The comb of the single-comb varieties is unusually large. In the male it is erect and has six evenly and deeply serrated points. The blade of the comb has a tendency to follow the neck. In the female also the comb is large and six-pointed and is lopped. The front of the comb, instead of being straight as in the case of the comb of the Leghorn female, folds to one side, and then the remainder of the comb droops to the other side of the head. The comb of the male of the rose-comb varieties is fairly large, square in front, and terminating in a well-defined spike which has a tendency to follow the neck. The rose comb of the female is practically the same as that of the male in shape, but, of course, is smaller, although rather large for a female.

The skin of all varieties of Minorcas is white. This is a distinct drawback from the standpoint of the production of market poultry in this country, as the popular demand is for fowls with a yellow

skin. The black and dark-slate legs and toes of the black varieties and the white or pinkish-white legs and toes of the white and buff varieties, are likewise a drawback from a market point of view, as the popular demand is for yellow-legged fowls.

The standard weights of the Single Comb Black and the Single Comb Buff Minorcas are: Cock, 9 pounds; hen, $7\frac{1}{2}$ pounds; cockerel, $7\frac{1}{2}$ pounds; pullet, $6\frac{1}{2}$ pounds. The standard weights of all of the other varieties of Minorcas are: Cock, 8 pounds; hen, $6\frac{1}{2}$ pounds; cockerel, $6\frac{1}{2}$ pounds; pullet, $5\frac{1}{2}$ pounds.

The Single Comb Black Minorca (figs. 9 and 10) undoubtedly is the best known of the Minorcas in this country. This variety is especially reputed for the size and pure white color of its eggs. The color of both sexes is black throughout, with lustrous greenish sheen over the surface, which should be free from purple barring. The undercolor of all sections is a dull black. The legs and toes are black or dark slate.

The Rose Comb Black Minorca is identical with the Single Comb Black Minorca in shape and color, differing only in the matter of size and comb.



FIG. 11.—White-Faced Black Spanish, male



FIG. 12.—White-Faced Black Spanish, female

The Single Comb White Minorca is identical with the Single Comb Black Minorca except in the matter of size and color. Birds of both sexes are a pure white throughout, which should be free from any foreign color whatever. The legs and toes are pinkish white.

The Rose Comb White Minorca is distinguished from the Single Comb White Minorca by the comb alone. In all other respects it is identical.

The Single Comb Buff Minorca is identical with the Single Comb Black Minorca in type and size, being distinguished only by its color. This should be an even, rich, golden buff throughout, being identical with that of the Buff Leghorn. The legs and toes are white or pinkish white.

WHITE-FACED BLACK SPANISH

The White-Faced Black Spanish (figs. 11 and 12) is generally considered to be the oldest fowl of the Mediterranean class. This breed undoubtedly was a native of Spain or one of the near-by countries. By reason of the very large, pendulous white face it is striking and unique in appearance. In type it is very much on the Minorca order, although it has not quite so long a body and has a somewhat higher carriage of tail. This breed is comparatively rare in the United States.

The comb is single and rather large, although not so large as the Single Comb Minorca. It has five regular, deeply serrated points,

and the blade extends nearly straight off the head, having little if any tendency to follow the neck. The comb of the female is erect in front and droops to one side, as in the Leghorn. The striking feature of this bird is a white face, which should be smooth and free from wrinkles, being long, deep, and pendulous. In breeding this fowl the white face is very important, the largest or longest and whitest face possible being desired. The face in males sometimes measures 7 inches in length. In color this bird has a black surface throughout with a lustrous greenish sheen. The undercolor is dark slate throughout. The color of legs and toes is a dark leaden blue or black. The color of the skin is white.

BLUE ANDALUSIAN

The Andalusian (figs. 13 and 14) also is commonly supposed to be a native of Spain and has derived its name from the Province of Andalusia. Andalusians have been known in this country for a long period, but have never become very popular or very widely kept.



FIG. 13.—Blue Andalusian, male



FIG. 14.—Blue Andalusian, female

The Andalusian is very similar to the Leghorn in type, but is a slightly larger bird. The standard weights of the Blue Andalusian are: Cock, 6 pounds; hen, 5 pounds; cockerel, 5 pounds; pullet, 4 pounds.

This is a single-comb breed, and in the male the comb is somewhat larger than in the Leghorn and the blade has a slight tendency to follow the neck. The comb of the female is practically identical with that of the Leghorn female. The male has a general top color of dark lustrous blue, approaching black, which extends over the hackle, back, saddle, shoulders, sickle feathers, and tail coverts. The rest of the plumage is a slaty blue which shows in all sections a well-defined lacing of darker blue. In the female the general plumage color is a slaty blue of even shade, each feather except the primaries having a clear, well-defined, narrow lacing of darker blue. The neck has a decidedly darker cast of plumage than the rest of the body. The undercolor of both sexes is a slaty blue throughout. The legs and toes are leaden blue and the skin is white in color.

The behavior of the Blue Andalusian in breeding is peculiar and interesting. When both sexes in the mating are blue, the chicks hatched are never all of them blue, but approximately 50 per cent come black or white or some combination of black and white. One-half of this 50 per cent, or 25 per cent of all the chicks from the mating, are black or occasionally black showing some red, especially in the males, while the other 25 per cent of the chicks come some kind

of white—in general, white splashed with black or blue. If matings are made in which one of the sexes is black and the other white, all of the chicks hatched will come blue. This latter form of mating is not generally used by breeders, however, for the reason that the quality of the blue produced in the chicks usually is not that desired. Breeders use only blue birds in their matings, selecting individuals which will give them the best color possible in the blue offspring and discarding the off-colored young birds for breeding purposes.

ANCONA

The Ancona, like the Leghorn, is supposed to have originated in Italy. It is one of the older of the Mediterranean breeds, but has not been known in this country so long as the Leghorn or Minorca.

In type this breed is very similar to the Leghorn. In general it seems to have about the same utility qualities as the Leghorn, but has never gained the popularity which the Leghorn enjoys. In size the Ancona and the Leghorn are the same except that the standard

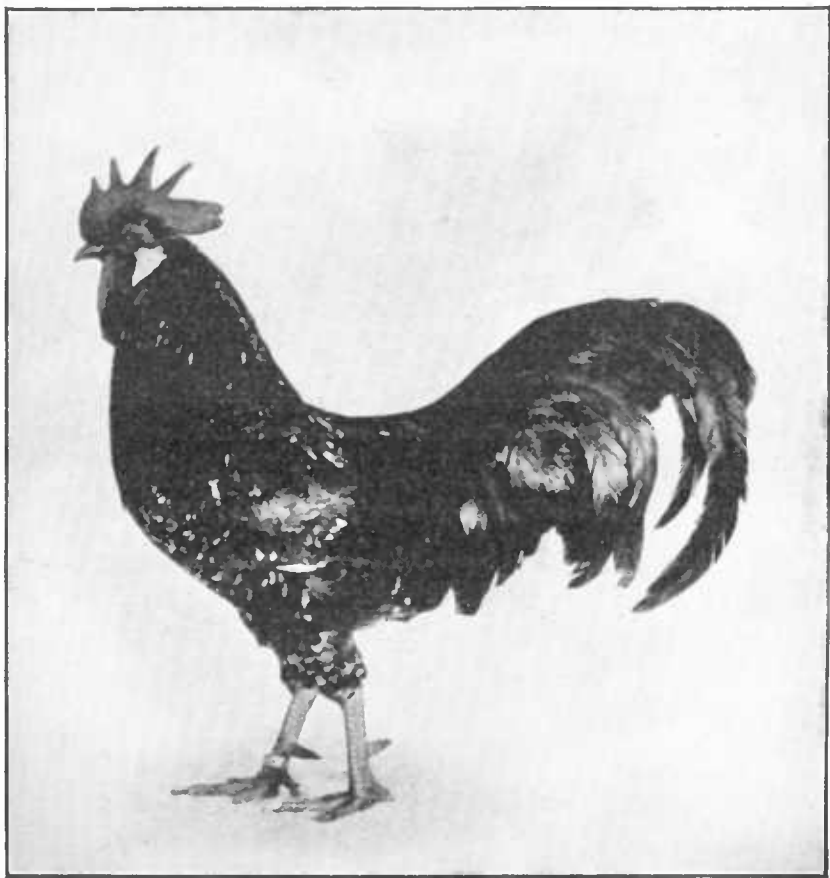


FIG. 15.—Single Comb Ancona, male



FIG. 16.—Single Comb Ancona, female

weight for the Ancona hen is one-half pound greater. The standard weights are: Cock, $5\frac{1}{2}$ pounds; hen, $4\frac{1}{2}$ pounds; cockerel, $4\frac{1}{2}$ pounds; pullet, $3\frac{1}{2}$ pounds.

The Ancona has a general body color of lustrous black with certain of the feathers throughout the plumage tipped with a V-shaped white tip. The proportion of feathers carrying such a white tip is about one in two. The black top color of the male has a greenish sheen which is absent in the female. The main tail feathers and sickles of the male and the main tail feathers of the female are each tipped with white. The primary and secondary wing feathers also carry white tips. The undercolor is dark slate throughout. The legs and toes are yellow or yellow mottled with black, and the skin is yellow.

The Single Comb Ancona (figs. 15 and 16) and the Rose Comb Ancona are identical in every respect except in the matter of comb. The single comb of both sexes is identical with that of the Single Comb Leghorn, while the rose comb is identical with Leghorn Rose Comb in the female, but in the male is slightly smaller.

CAMPINE

The Campine is a breed which originated in Belgium and has found a good deal of favor there as an egg breed. It is only recently that this breed has attracted attention in the United States, but it has gained favor rapidly and at the present time is enjoying a considerable measure of popularity.

In its general characteristics the Campine is very much like the Leghorn. It is a comparatively small breed, very alert and active, and of a nervous temperament. These fowls should be rather deep and long bodied and should be well rounded. The Campine female has, if anything, a longer back than the Leghorn female. Both varieties of Campines are single combed, the shape of the comb being the same as that of the Leghorn in both sexes. The standard weights are: Cock, 6 pounds; hen, 4 pounds; cockerel, 5 pounds; pullet, 3½ pounds.



FIG. 17.—Silver Campine, male

In the Silver Campine (figs. 17 and 18) both the male and the female have white heads and hackles. The rest of the plumage is a greenish black, each feather barred with distinct white bars, the black bars being wider than the white by about four times. The



FIG. 18.—Silver Campine, female

white bars do not extend straight across the feather, but have a slight tendency to be V-shaped at the quill. The undercolor is slate throughout. The legs and toes are leaden blue and the skin white in color.

The Golden Campine is identical with the Silver Campine except that the white of the Silver Campine is replaced by golden bay.

BUTTERCUP

The Buttercup resembles the Leghorn in general characteristics and is of about the same size. The standard weights are: Cock, 6 pounds; hen, 4 pounds; cockerel, 5 pounds; pullet, 3 pounds. This breed derives its name from its cup-shaped comb. The ear lobe should be white and the shanks and toes willow green.

The plumage of the neck, back, and saddle of the male is an orange red with a reddish-bay breast and a greenish-black tail. The shoulders and wing bows are a bright-orange red, with the wing bar an even shade of reddish bay. The color of the female is quite different from that of the male, the ground color being a golden buff. Parallel rows of elongated black spangles, each spangle extending slightly diagonally across the web, are found on the wing, on the back, on the fluff, and on the lower part of the breast.

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ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

June 2, 1924

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